

REMARKS

Claims 1-19 are pending in the application.

It is noted that the claims amendments are made only for pointing out the claimed invention more particularly, and not for distinguishing the invention over the prior art, narrowing the claims, or for statutory requirements for patentability. Further Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges the Examiner's indication that claims 4-6 would be allowable if rewritten in independent form. Applicant submits, however, that all pending claims are allowable.

The Examiner indicates that the present Office Action is necessitated because of new grounds for rejection.

Claims 1, 8-9, 11-15, and 17 stand rejected under 35 U.S.C. §103 over Lor et al. (U.S. Patent Publication No. 2004/0068668) (hereinafter Lor) in view of Margon et al. (U.S. Patent Publication No. 2003/0214933) (hereinafter Margon). **Claims 2-3, 7, 10, 16, and 18-19 stand rejected under 35 U.S.C. §103(a)** over Lor in view of Margon and further in view of Whelan et al. (U.S. Patent Publication No. 2004/0203593) (hereinafter Whelan).

Applicant respectfully traverses these rejections in the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention, as recited in independent claim 1, is directed to a method of limiting communication access between wireless LAN terminals of a wireless LAN, including the steps of allocating different subnetwork addresses to respective

wireless LAN terminals, setting default gateways of the respective wireless LAN terminals as a single access limiter, and **returning a communication packet between the wireless LAN terminals from said access limiter** which is set as said default gateways, for providing an access limiting function **to limit communication access between the wireless LAN terminals**.

The conventional wireless LAN, however, does not limit communication **between wireless LAN terminals of a wireless LAN**. As a result, communication between wireless terminals can consume all of the LAN's resources. For example, an FTP transfer between terminals in the wireless network can lead to 100 percent of the wireless LAN transferring the files between the terminals, leading to a loss of function during that transfer.

The claimed invention provides, however, "an access limiting function **to limit communication access between the wireless LAN terminals**." That is, **within** a wireless LAN, **access between terminals** is controlled. This feature is important for preventing two wireless terminals from consuming all the resources of a wireless LAN (See the Application, page 4, lines 17-26).

II. THE ALLEGED PRIOR ART REFERENCE

On page 3 of the Office Action, the Examiner alleges that Lor and Margon would be combined to teach the claimed invention described by claims 1, 8-9, 11-15, and 17.

However, Lor and Margon, either alone or in combination, do **not** teach or suggest every element as recited in the claimed invention.

To establish a prima facie case of obviousness, several basic criteria must be met. First, rejections on obviousness grounds cannot be sustained by mere conclusory statements;

instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (*In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int'l. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007)). In addition, the prior art reference (or references when combined) must still teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

First, the alleged references do not teach or suggest every element as claimed because Lor only teaches security access and “hand-off” protocols for wireless devices and not to the claimed wireless terminal to wireless terminal access limitation.

In general if a network is connected directly in L2, the network is assigned “directly connected group in L3,” and not through a router. That is, “directly connected group in L3” means a network which that is one subnet on the IP network. Because the claimed invention uses WLAN, the terminal which is connected to one access point corresponds to “a network which is connected directly in L2.” Therefore the network is directly connected in L3 and not through a router.

However, in the claimed invention, a direct communication in L2 is left, since it is inevitably, physically. The different network which is not directly connected is assigned. Therefore, a “uniform management,” of all packets is possible and control of all facets of communication, i.e., access control, QoS, etc.

Assigning a different subnet is one embodiment of providing a “uniform management apparatus,” which means an apparatus through which all traffic necessarily passes, by separating communication between each terminal and gathering all packets to one piece of equipment.

Next, the Examiner admits that Lor does not teach allocating different subnetwork

addresses to respective wireless LAN terminals in a wireless LAN access point. The Examiner then alleges that Margon makes up for Lor's admitted deficiency.

Nonetheless, Applicant first submits that Lor does not teach or suggest "a method of limiting communication between wireless LAN terminals of a wireless LAN," as recited in claim 1, and as similarly recited in claims 9 and 17. That is, contrary to the Examiner's allegations, Lor is directed to monitoring the status of a single wireless terminal in a wireless network. Referring to FIGS. 3 and 5 of Lor, various "handoff" scenarios are illustrated in which wireless device 322, for example, passes over to the position of wireless device 323. Instead of teaching multiple wireless terminals of a wireless LAN, Lor teaches single wireless terminals moving from wireless LAN to wireless LAN.

Referring to FIG. 1 of Lor, LAN 101 includes several access points 111, 112, 113, 114, and 115. Each of these points may be considered a wireless network because they are taught as the point at which wireless devices 120-129 access the overall network or LAN 101. Where an access point does include multiple wireless devices, such as access point 115 and wireless devices 128 and 129, Lor does not teach or suggest "a method of limiting communication between wireless LAN terminals of a wireless LAN," as recited in claim 1. Instead, Lor teaches controlling the access for each of the wireless devices. Thus, paragraphs [0036-46] teach security arrangements for the access points, such as preventing log-in fraud and not "limiting communication," as recited in claim 1.

Furthermore, contrary to the Examiner's allegations, paragraphs [0047-63] teach security policies on network use. Lor merely provides that access points may include the capability to control access. *See* Lor, Paragraph [0048]. One method involves simply inspecting and discarding packets that are inefficient. *See* Lor, Paragraph [0055]. However,

similar to the above discussion of paragraphs [0036-0046], no part of Lor teaches or suggests, “a method of limiting communication between wireless LAN terminals of a wireless LAN,” as recited in claim 1.

That is, the Examiner is improperly reading claim limitations into an alleged reference that do not exist. In particular, Lor is not on point to the problem that the claimed invention is directed, nor does Lor provide any teaching or suggestion that would be relevant to the claimed invention.

Furthermore, Lor does not teach or suggest “setting default gateways of the respective wireless LAN terminals as a single access limiter,” as recited in claim 1. Instead, conventional wireless networks do not send packets designed for identical subnets through a default gateway. *See e.g.*, the Application, page 3, lines 4 and 5. Since different subnets are allocated to respective wireless LAN terminals, wireless LAN terminals are unable to communicate directly with each other. A wireless LAN terminal thus sends a packet destined for another wireless LAN terminal to the default gateway as an access limiter. *See e.g.*, the Application, page 14, lines 17-21. Thus, where the Examiner alleges that Lor teaches these claimed elements, the Wireless LAN Switches may limit access via access control, but the Wireless LAN Switches do not teach or suggest “setting default gateways of the respective wireless LAN terminals as a single access limiter,” as recited in claim 1.

Instead, on page 3 of the Office Action the Examiner states that Lor teaches “setting default gateways,” by access points 111-115 and switches 106 and 107. Contrary to the Examiner’s allegation, however, each switch 106 and 107 teaches a wireless edge manager that is connected to authentication server 104. That is, contrary to the claimed invention, each switch has to limit access through server 104. Therefore, the wireless edge points are

not default gateways acting as single access limiters because authorization server 104 provides the access rules. *See* Lor, paragraph [0059]. Thus, user segregation occurs at the level of arrow B and VPN tunneling would occur at the level of arrow C as illustrated in Figure 2. *See* Lor, paragraph [0034 and 0060].

In addition, the Examiner alleges that paragraph [0055] teaches “returning a communication packet between the wireless LAN terminals from said access limiter which is set as said default gateways, for providing an access limiting function to limit communication access between the wireless LAN terminals,” as recited in claim 1. While Lor does teach limiting access by simply pruning disfavored downloads, Lor does not teach or suggest, teaches “returning a communication packet between the wireless LAN terminals,” because Lor is discussing communication from a single wireless device to a network, and not communication between wireless devices at a single terminal. Furthermore, Lor does not teach or suggest that the “access limiter which is set as said default gateways, for providing an access limiting function to limit communication access between the wireless LAN terminals,” as recited in claim 1.

With respect to Margon, the Examiner alleges that Margon is an analogous art and that Margon teaches allocating different subnetwork addresses to respective wireless LAN terminals. That is, in particular, the Examiner alleges that because one or more zones can be created that correspond to sub-networks of an IP-network, Margon therefore teaches the claimed invention.

First, the Examiner relies on non-analogous art. The claimed invention is directed to wireless LAN access limiting while Margon is directed to broadcast differentiation where the broadcast is divided into zones based on geographic location.

To determine analogous art, the examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter taught therein is relevant to the particular problem with which the inventor is involved).

Margon, on the other hand is non-analogous art, and even if it taught relevant subject matter, is related to a different broadcasting endeavor than the claimed invention.

In addition, contrary to the Examiner's allegation, however, the creation of zones that correspond to sub-networks does not teach or suggest "allocating different subnetwork addresses to respective wireless LAN terminals in a wireless LAN access point," as recited in claim 1, and as similarly recited in independent claims 9 and 17. Instead, Margon only teaches that substations 104 each have a preassigned address. See Margon, Paragraph [0038].

The data is broadcast to all stations, but the data is only opened by the station having the intended address.

Margon teaches that these address scheme can include an IP address for that remote station. Therefore, data packets meant to be sent to all the stations can use the default broadcasting scheme. Data meant for an individual station will only have the IP address of that station, and other stations that receive that broadcast data packet will discard it instead of opening it. *See* Margon, Paragraph [0039]. These broadcasts are based on geographical zones instead of actual networks. Thus, for example, Zone 3 of Figure 5 is simply in the general direction to the “left” of Base 102 and the data is broadcast in that direction. *See* Margon, Paragraph [0051] (where the zones are grouped according to physical location).

Therefore, Margon is not teaching “allocating different subnetwork addresses to respective wireless LAN terminals in a wireless LAN access point,” but rather merely giving different receivers different addresses in a zone, the zone being defined by a physical location and not by a wireless terminal network. This communication is also one dimensional, as the different stations 104 do not communicate between each other, instead only receiving communications from base 102.

In sum, Lor and Margon, alone or in combination, do not teach or suggest every element as recited in independent claim 1, and as similarly recited in claims 9 and 17. Furthermore, Applicant submits that Lor would not be combined with Margon because Margon is non-analogous to Lor. Accordingly, Applicant submits that claims 1, 9, and 17 are in condition for allowance.

With respect to claims 2-8, 10-16, 18, and 19, which depend from independent claims 1, 9, and 17, respectively, each of these claims contain all the limitations contained within

claims 1, 9, and 17 and are therefore also in condition for allowance.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-19, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

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